

REMARKS

Reconsideration and allowance of this application, as amended, is respectfully requested.

This Amendment is in response to the Office Action dated June 29, 2005. By the present amendment, the Specification and Claims have been amended for clarification, as will be discussed below.

Reconsideration and removal of the objection to the drawings set forth on page 2 of the Office Action is respectfully requested. With regard to this, it is noted that claim 7 has been amended to delete the language objected to as not being shown in the drawing. Accordingly, it is respectfully submitted that this objection to the drawing has been obviated by this amendment, and, correspondingly, removal of the objection is respectfully requested.

Reconsideration and removal of the objection to the disclosure set forth on paragraph 3 on the Office Action is also respectfully requested. By the present amendment, the language proposed in the Office Action has been adopted. Therefore, reconsideration and removal of this objection is also respectfully requested.

Reconsideration and removal of the objection to claims 5 and 6 set forth on page 3 of the Office Action is also respectfully requested. By the present amendment, the term "an AC test" has been replaced in claims 5 and 6 by the phrase "a capture operation and a launch operation of the LSSD-type flip/flops." As such, it is respectfully submitted that this language has been clarified, and is fully understandable in light of the Specification. Accordingly reconsideration and removal of the objection to claims 5 and 6 is respectfully requested.

Reconsideration and removal of the 35 USC §112, second paragraph, rejection with regard to claim 7 is also respectfully requested. By the present amendment, claim 7 has been amended to provide proper antecedent basis for the language questioned in the Office Action regarding line 4 of claim 7. It is noted that the subject matter in question is clearly supported by the clock terminals LSSD-B, LSSD-A and LSSD-C shown in Fig. 1 and described, for example, on page 6, line 21, through page 7, line 1. With regard to the language objected to on line 6 of claim 7, this language has been deleted. Accordingly, reconsideration and removal of the 35 USC §112, second paragraph, rejection is respectfully requested.

Finally, reconsideration and allowance of claims 3-8 over USP 5,783,960 to Lackey is also respectfully requested. By the present amendment, claims 1 and 2 have been canceled, without prejudice to the applicants' right to proceed with the subject matter of these claims in a continuation application. Accordingly, claim 3 is now the sole independent claim remaining in the application. Claim 3 specifically defines the feature of a pulse generator;

"that forms a first pulse corresponding to a difference in phase between the first signal and the second signal."

As such, it is possible for the pulse generator to generate a short pulse because it is based on a phase difference. This can be readily appreciated by studying Fig. 4 of the present application and the description regarding Fig. 4 found on page 12, line 26 et seq.

It is respectfully submitted that the Lackey reference fails to teach or suggest a pulse generator forming a first pulse corresponding to the difference in phase between first and second signals. In Lackey, a pulse is generated by combining

enable signals (such as 34, 36, 38, 48 shown in Fig. 1) with a reference clock signal 50 which rises and falls alternately. As such, it is respectfully submitted, that Lackey fails to teach the claimed structure of a pulse generator forming a first pulse based on the difference in phase between the first and second signals.

The significance of this difference is that the arrangement of Lackey is not capable of generating a very short pulse in the manner which can be achieved by the claimed structure defined by independent claim 3. For example, claim 3 includes the limitation:

"wherein a rising time up to full amplitude of any one of buffers in the first signal path and the second signal path is longer than a pulse width of the first pulse."

With regard to this, the pulse generator of the present invention can provide a short pulse width for the first pulse since the first pulse corresponds to a difference in phase between the first and second signals. In the arrangement of Lackey, since Lackey generates a pulse which requires the use of the clock signal 50, when a long time is required for the clock pulse 50 to reach full amplitude, a pulse shorter than this long time cannot be generated. Therefore, it is respectfully submitted that both the structure and the operation of Lackey differs from that defined by claim 3. Accordingly, reconsideration and allowance of the independent claim 3 over Lackey is respectfully requested.

Consideration of dependent claims 4-8 over Lackey is also respectfully requested. In addition to containing all features of the independent claim 3, discussed above, claims 4-8 set forth further specific details of the claimed invention which, when considered in combination with the features of claim 3, serve to even further define over Lackey.

Consideration of newly presented dependent claims 9 and 10 is also respectfully requested. These claims 9 and 10 set forth the feature of the invention that the difference in phase between either the first and second signal (claim 9) or the second and third signal (claim 10) is determined from the rising edges of either the first and second signals (claim 9) or the second and third signals (claim 10). This can be read, for example, on the arrangement shown in Fig. 4 and discussed beginning on page 12, line 26 et seq. of the Specification. As such, these dependent claims serve to further emphasize the advantage of the present invention in utilizing a pulse generator which forms a first pulse corresponding to the difference in phase determined from rising edges of input signals. As such, these newly presented dependent claims 9 and 10 serve to even further define the arrangement of the present invention over the Lackey reference. Therefore, consideration and allowance of these newly presented dependent claims 9 and 10 is respectfully requested.

If the Examiner believes that there are any other points which may be clarified or otherwise disposed of either by telephone discussion or by personal interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

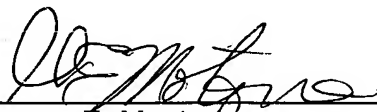
To the extent necessary, Applicants petition for an extension of time under 37 CFR §1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Antonelli, Terry, Stout & Kraus,

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LLP Deposit Account No. 01-2135 (Docket No. 520.43336X00), and please credit any excess fees to such deposit account.

Respectfully submitted,
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